EQUIPMENT TEST LIST

AMPLIFIERS

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1. GENERAL

1.01 This section provides an index and information access system to locate the standard tests applicable to equipment listed in the preceding table of contents. Test classification and frequency of periodic routine are also provided.

1.02 This Equipment Test List (ETL) is reissued to incorporate changes which are indicated by an arrow to the left of each line which has been changed.

1.03 Comments on this section should be made by following the instructions in Bell System Practices (BSP), Section 000-010-015.

1.04 Routine test information is arranged in the following order from left to right: Section number, issue/addendum, test letter or paragraph number, test title, test class, frequency, and the last space is for a locally assigned job number.

1.05 Section 010-300-011 provides Equipment Test List instructions.

NOTICE
Not for use or disclosure outside the
Bell System except under written agreement

1.0 AMPLIFIERS

1.1 AMPLIFIERS; 94D

FOR ALL UNITS

024-100-100 (2/0)	5.04	(5.04 - 5.06) TEST ELECTRON TUBES	MW 3M	_____
	5.15	(5.15 - 5.18) CHECK ELECTROLYTIC CONDENSERS	MW 12M	_____

TROUBLE TESTS

024-100-100 (2/0)	5.01	(5.01 - 5.03) POWER TRNSF VOLTAGES	TT	_____
	5.07	(5.07 - 5.10) STEP-GAIN CHARACTERISTIC	TT	_____
	5.11	(5.11 - 5.12) GAIN-FREQUENCY CHARACTERISTIC	TT	_____
	5.13	(5.13 - 5.14) OUTPUT NOISE	TT	_____

1.2 AMPLIFIERS; 106A

FOR ALL UNITS

024-102-500 (1/1)	2.04	(2.04 - 2.06) TEST ELECTRON TUBES	MW 6M	_____

TROUBLE TESTS

024-102-500 (1/1)	2.01	(2.01 - 2.03) PRIMARY PWR VOLTAGE MEASMT & ADJMT	TT	_____
	2.07	(2.07 - 2.14) GAIN TESTS	TT	_____
	2.15	(2.15 - 2.17) GAIN-FREQ TEST	TT	_____
	2.18	(2.18 - 2.20) NOISE TESTS	TT	_____
	2.21	(2.21 - 2.24) MEASURE CATHODE CURRENT	TT	_____
	2.25	PRELIMINARY TROUBLE TESTS	TT	_____
	2.26	(2.26 - 2.30) OPRG VOLTAGE MEASMT	TT	_____
	2.31	(2.31 - 2.32) DISTORTION TROUBLES	TT	_____

1.3 AMPLIFIERS; 118A

FOR ALL UNITS

024-103-500 (1/1)	2.08	(2.08 - 2.09) GAIN TESTS	MW 6M	_____
	2.10	GAIN FREQUENCY TESTS	MW 6M	_____
	2.11	NOISE TESTS	MW 6M	_____
	3.01	CHECK VACUUM TUBES	MW 2M	_____

TROUBLE TESTS

024-103-500 (1/1)	2.01	(2.01 - 2.04) PRIMARY VOLTAGE MEASMT	TT	_____
	2.05	(2.05 - 2.07) PWR OUTPUT ADJMT	TT	_____
	2.12	ELECTROLYTIC CONDENSERS	TT	_____

1.4 AMPLIFIERS; A-120 (MCINTOSH)

FOR ALL UNITS

024-121-500 (2/0)	2.01	(2.01 - 2.03) PRIMARY PWR VOLTAGE MEASMT	MW 12M	_____
	2.04	(2.04 - 2.06) TEST ELECTRON TUBES	MW 3M	_____
	2.07	(2.07 - 2.12) GAIN & GAIN-FREQUENCY	MW 3M	_____
	2.14	(2.14 - 2.16) NOISE TEST	MW 3M	_____

TROUBLE TESTS

024-121-500 (2/0)	2.13	MAXIMUM OUTPUT TESTS	TT	_____

	024-121-500 (2/0)	2.17	PRELIMINARY TROUBLE LOCATING TESTS	TT	_____
		2.18	(2.18 - 2.20) OPRG VOLTAGE MEASMT	TT	_____
		2.21	DISTORTION TROUBLE	TT	_____
		2.22	(2.22 - 2.23) ELECTROLYTIC CAPACITOR TESTING & RPLCMT	TT	_____

1.5 AMPLIFIERS; 124-TYPE

FOR ALL UNITS

◗	024-104-500 (2/3)	2.04	TEST VACUUM TUBES	MW 6M	_____
◗		2.06	(2.06 - 2.12) GAIN TESTS	MW 6M	_____
◗		2.13	(2.13 - 2.16) GAIN FREQUENCY TESTS	MW 6M	_____
◗		2.17	NOISE TEST	MW 6M	_____

TROUBLE TESTS

	024-104-500 (2/3)	2.01	(2.01 - 2.02) PRIMARY VOLTAGE MEASMT	TT	_____
		2.03	PWR OUTPUT ADJMT	TT	_____
		2.05	OPRG CURRENTS AND VOLTAGES	TT	_____
		2.19	(2.19 - 2.20) ELECTROLYTIC CONDENSERS	TT	_____

1.6 AMPLIFIERS; 140-TYPE

FOR ALL UNITS

◗	024-105-500 (2/0)	2.04	(2.04 - 2.06) TEST ELECTRON TUBES	MW 6M	_____
◗		2.07	(2.07 - 2.12) GAIN & GAIN-FREQUENCY TESTS	MW 6M	_____
◗		2.13	(2.13 - 2.15) NOISE TEST	MW 6M	_____

TROUBLE TESTS

	024-105-500 (2/0)	2.01	(2.01 - 2.03) PRIMARY VOLTAGE MEASMT	TT	_____
		2.16	PRELIMINARY TROUBLE LOCATING TESTS	TT	_____
		2.17	(2.17 - 2.22) OPRG VOLTAGE MEASMT	TT	_____
		2.23	ELECTROLYTIC CAPACITOR TEST	TT	_____

1.7 AMPLIFIERS; 142-TYPE

FOR ALL UNITS

◗	024-106-500 (1/1)	2.04	(2.04 - 2.06) TEST ELECTRON TUBES	MW 6M	_____

TROUBLE TESTS

	024-106-500 (1/1)	2.01	(2.01 - 2.03) PRIMARY PWR VOLTAGE MEASMT	TT	_____
		2.07	(2.07 - 2.12) GAIN AND GAIN-FREQUENCY TESTS	TT	_____
		2.13	(2.13 - 2.15) NOISE TEST	TT	_____
		2.16	PRELIMINARY TROUBLE LOCATING TESTS	TT	_____
		2.17	(2.17 - 2.21) OPRG VOLTAGE MEASMT	TT	_____
		2.22	ELECTROLYTIC CAPACITOR TEST	TT	_____

1.8 AMPLIFIERS; 143-TYPE

FOR ALL UNITS

◗	024-107-500 (2/0)	2.05	(2.05 - 2.07) TEST ELECTRON TUBES	MW 6M	_____
◗		2.25	ELECTRON TUBE V11 REPLCMT	MW 3M	_____

TROUBLE TESTS

	024-107-500 (2/0)	2.01	(2.01 - 2.04) PRIMARY PWR VOLTAGE MEASMT & ADJMT	TT	_____
		2.08	(2.08 - 2.15) GAIN & GAIN-FREQUENCY TEST	TT	_____
		2.16	(2.16 - 2.18) NOISE TEST	TT	_____
		2.19	(2.19 - 2.21) PRELIMINARY TROUBLE LOCATING TESTS	TT	_____
		2.22	(2.22 - 2.27) OPRG VOLTAGE MEASMT	TT	_____
		2.28	(2.28 - 2.29) ELECTROLYTIC CAPACITOR TEST	TT	_____
	1.9 AMPLIFIERS; KS-16508 L1 & L2				
	FOR ALL UNITS				
◗	024-150-501 (1/1)	3.01	AC LINE VOLTAGE CHECK	MW 6M	_____
◗		4.01	TEST ELECTRON TUBES	MW 3M	_____
◗		5.01	REPRODUCE CHANNEL GAIN-FREQUENCY TEST	MW 3M	_____
◗		5.02	REPRODUCE CHANNEL DISTORTION TEST	MW 3M	_____
◗		5.03	REPRODUCE CHANNEL NOISE TEST	MW 3M	_____
◗		6.01	RECORD CHANNEL GAIN-FREQUENCY TEST	MW 3M	_____
◗		7.01	CHECK VOICE-OPERATED ALARM CKT ADJMT	MW 3M	_____
	1.10 AMPLIFIERS; KS-16547 L1				
	FOR ALL UNITS				
◗	024-150-502 (1/0)	3.01	AC LINE VOLTAGE CHECK	MW 6M	_____
◗		4.01	TEST ELECTRON TUBES	MW 3M	_____
◗		5.01	GAIN-FREQUENCY TEST	MW 3M	_____
◗		6.01	NOISE TEST	MW 3M	_____
◗		7.01	DISTORTION TEST	MW 3M	_____
	1.11 AMPLIFIERS; KS-16575 L1				
	FOR ALL UNITS				
◗	024-120-500 (1/0)	2.01	(2.01 - 2.03) PRIMARY PWR VOLTAGE MEASMT	MW 6M	_____
◗		2.04	(2.04 - 2.06) TEST ELECTRON TUBES	MW 3M	_____
◗		2.07	(2.07 - 2.12) GAIN & GAIN-FREQUENCY TESTS	MW 3M	_____
◗		2.13	(2.13 - 2.15) NOISE TEST	MW 3M	_____
◗		2.16	(2.16 - 2.18) MAXIMUM OUTPUT TESTS	MW 3M	_____
	TROUBLE TESTS				
	024-120-500 (1/0)	3.03	(3.03 - 3.06) OPRG VOLTAGE MEASMT	TT	_____
		3.07	RESISTANCE MEASMT	TT	_____
		3.08	DISTORTION TROUBLE	TT	_____
		3.09	(3.09 - 3.10) ELECTROLYTIC CAPACITOR TESTING & RPLCMT	TT	_____
	1.12 AMPLIFIERS; KS-16608 L1 & KS-16610 L1				
	FOR ALL UNITS				
◗	024-150-503 (2/0)	3.01	AC LINE VOLTAGE CHECK	MW 6M	_____
◗		4.01	TEST ELECTRON TUBES	MW 3M	_____
◗		5.01	(5.01 - 5.02) GAIN-FREQUENCY TEST	MW 3M	_____

◊	024-150-503 (2/0)	6.01	NOISE TEST	MW 3M	_____
◊		7.01	DISTORTION TEST	MW 3M	_____
◊		8.01	LIMITER TEST	MW 3M	_____

1.13 AMPLIFIERS; KS-16617 L1

FOR ALL UNITS

◊	024-150-504 (1/0)	3.01	(3.01 - 3.02) AC LINE VOLTAGE CHECK	MW 6M	_____
◊		4.01	TEST ELECTRON TUBES	MW 3M	_____
◊		7.01	CHECK VOICE-OPERATED RELAY CKT ADJMT	MW 3M	_____

OPTIONAL FEATURES

HIGH-LEVEL CHANNEL

◊	024-150-504 (1/0)	5.01	GAIN-FREQUENCY TEST	MW 3M	_____
◊		5.02	NOISE TEST	MW 3M	_____
◊		5.03	DISTORTION TEST	MW 3M	_____

LOW-LEVEL CHANNEL

◊	024-150-504 (1/0)	6.01	GAIN-FREQUENCY TEST	MW 3M	_____
◊		6.02	LIMITER TEST	MW 3M	_____
◊		6.03	NOISE TEST	MW 3M	_____

1.14 AMPLIFIERS; KS-16622 L1

FOR ALL UNITS

◊	024-125-500 (3/0)	3.01	AC LINE VOLTAGE CHECK	MW 6M	_____
◊		4.01	TEST ELECTRON TUBES	MW 3M	_____
◊		5.01	(5.01 - 5.03) GAIN-FREQUENCY TESTS	MW 3M	_____
◊		6.01	NOISE TEST	MW 3M	_____
◊		7.01	DISTORTION TEST	MW 3M	_____

1.15 AMPLIFIERS; KS-16740 L2 (ALTEC 437B)

FOR ALL UNITS

◊	024-130-500 (2/0)	3.01	TEST ELECTRON TUBES	MW 3M	_____
◊		4.01	GAIN-FREQUENCY TESTS	MW 3M	_____
◊		5.01	NOISE TEST	MW 3M	_____
◊		6.01	DISTORTION TEST	MW 3M	_____

1.16 AMPLIFIERS; KS-19602 L1

FOR ALL UNITS

◊	024-178-500 (1/1)	5.01	TEST ELECTRON TUBES	MW 3M	_____
◊		6.01	(6.01 - 6.02) GAIN-FREQUENCY TEST	MW 3M	_____
◊		7.01	NOISE TEST	MW 3M	_____
◊		8.01	DISTORTION TEST	MW 3M	_____

1.17 AMPLIFIERS; KS-19739 L1

FOR ALL UNITS

◊	024-182-500 (3/0)	5.01	GAIN-FREQUENCY TEST	MW 3M	_____
◊		6.01	PWR OUTPUT TEST	MW 3M	_____
◊		7.01	OUTPUT REGULATION TEST	MW 3M	_____

◗ 024-182-500 (3/0)	8.01	NOISE TEST	MW 3M	-----	
1.18 AMPLIFIERS; KS-20425 L1, L2					
FOR ALL UNITS					
◗ 024-122-500 (3/0)	3.01	GAIN-FREQUENCY TEST	MW 12M	-----	
◗	4.01	NOISE TEST	MW 12M	-----	
TROUBLE TESTS					
024-122-500 (3/0)	5.01	EQUALIZATION	TT	-----	
1.19 AMPLIFIERS; KS-16754 L1, L2, L3 & L4					
TROUBLE TESTS					
024-176-200 (6/1)	7.01	(7.01 - 7.06) TEST & ADJMTS	TT	-----	
	8.01	(8.01 - 8.03) MAINTENANCE	TT	-----	
1.20 AMPLIFIERS; KS-16831 L1, L2 & L3					
TROUBLE TESTS					
024-175-500 (4/0)	3.01	(3.01 - 3.05) GAIN FREQUENCY TEST	TT	-----	
	4.01	(4.01 - 4.03) NOISE TEST	TT	-----	
1.21 AMPLIFIERS; KS-20159 L1, L2					
TROUBLE TESTS					
024-175-510 (2/0)	3.01	GAIN-FREQUENCY TEST	TT	-----	
	4.01	NOISE TEST	TT	-----	
	5.00	EQUALIZATION	TT	-----	
	6.00	EFFECTS OF EXTERNAL COMPONENTS	TT	-----	
1.22 AMPLIFIERS; KS-19219 L1					
TROUBLE TESTS					
024-177-500 (2/0)	3.02	REPRODUCE CHANNEL TEST	TT	-----	
	3.03	RECORD CHANNEL TEST	TT	-----	
	3.04	BIAS & ERASE OSCILLATOR TEST	TT	-----	
1.23 AMPLIFIERS; KS-19601 L1					
TROUBLE TESTS					
024-179-500 (1/0)	5.01	SIDETONE SUPPRESSION CKT TEST	TT	-----	
HIGH-LEVEL CHANNEL					
024-179-500 (1/0)	3.01	GAIN-FREQUENCY TEST	TT	-----	
	3.02	NOISE TEST	TT	-----	
	3.03	DISTORTION TEST	TT	-----	
LOW-LEVEL CHANNEL					
024-179-500 (1/0)	4.01	GAIN-FREQUENCY TEST	TT	-----	
	4.02	NOISE TEST	TT	-----	
1.24 AMPLIFIERS; KS-20449 L1					
TROUBLE TESTS					
024-174-500 (3/0)	4.01	GAIN-FREQUENCY TEST	TT	-----	
	5.01	PWR OUTPUT TEST	TT	-----	
	6.01	AGC COMPRESSION RANGE TEST	TT	-----	

024-174-500 (3/0)	7.01	NOISE TEST	TT	_____
1.25 AMPLIFIERS; SD-95396-01				
TROUBLE TESTS				
024-109-500 (2/0)	4.00	(A)NONOPERATE PAD CURRENTS	TT	_____
	4.00	(B)TRANSMITTING GAIN	TT	_____
	4.00	(C)RECEIVING GAIN	TT	_____
	4.00	(D)SIDETONE LOSS	TT	_____
	4.00	(E)SENSITIVITY	TT	_____
	4.00	(F)OPERATE PAD CURRENTS	TT	_____
	4.00	(G)LISTENING TEST	TT	_____